<center>**R E M A R K S**</center>

Claims 1-27 are pending in the application. Claims 16-24 are withdrawn. Claims 1, 10, 13 and 25 are independent claims. No new matter has been added by this amendment.

Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Claim Rejections – 35 USC § 103

The Office Action rejects claims 1-2 and 4-15 under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2005/0128945 (Kuo et al.) in view of U.S. Patent No. 5,7334,654 (Shirai et al.).

The Office Action rejects claims 25-27 under 35 U.S.C. 103(a) as being unpatentable over Shirai et al. in view of U.S. Publication No. 2003/0026205 (Mullendore et al.).

Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 1

Claim 1 recites a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

Neither Kuo et al., nor Shirai et al., nor any combination thereof proposed in the Office Action, teaches or suggests the method of claim 1.

Kuo et al. disclose that a network device may facilitate an exchange of information packets via a number of different ports (para 0001). For example, a network processor may receive packets and arrange for each packet to be transmitted via an appropriate port (para 0001). Moreover, it may be helpful to avoid unnecessary delays when processing the packets--

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especially when the network device is associated with a relatively high speed network (para 0001). The schedule processing element 110 determines when each packet should be transmitted and provides the packets to a transmit processing element 120 as appropriate (para 0012). The packets may be scheduled, for example, based on quality of service parameters associated with each packet (para 0012). The schedule processing element 110 and the transmit processing element 120 may comprise a series of multi-threaded, multi-processing Reduced Instruction Set Computer (RISC) devices or "microengines." According to some embodiments, each processing element 110, 120 is associated with a functional block that performs ATM traffic management operations (e.g., scheduling or transmitting) (para 0012).

FIG. 3 is a flow chart of a method according to some embodiments (para 0017). At 304, information associated with the port is determined (para 0019). For example, whether or not that particular port is currently blocked may be determined by a transmit processing element (para 0019). According to one embodiment, a hardware unit pools the status of each port and places the status (e.g., "0" indicating blocked and "1" indicating unblocked) in a control status register (para 0019). The transmit processing element might then read the control status register to determine whether or not a particular port is blocked (e.g., by inspecting the bit associated with that port) (para 0019). According to another embodiment, the "information associated with the port" represents the total number of packets that are currently pending (e.g., that have been scheduled but not transmitted for any of the ports, including the port associated with this particular packet) (para 0019). Based on the information determined at 304, the packet is prevented from being placed in a transmit buffer at 306 (para 0019).

However, Kuo et al. do not teach or suggest a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 1.

At the very least, Kuo et al. do not teach or suggest determining a <u>number of transmit buffers to be associated with the packet</u>; and arranging for the packet to be transmitted through a

port without storing the packet identifier in a local transmit queue if <u>the number of transmit buffers</u> does not exceed a pre-determined threshold.

Shirai et al. disclose a frame relay switching apparatus and router (title). According to Shirai et al., when, for example, the service rate of a processor of the frame relay switching apparatus or the service rate of a buffer exceeds a predetermined reference value, it is determined that congestion has taken place in the network and the BECN and FECN report the occurrence of the congestion to a receiving terminal and a sending terminal, respectively (col. 2, lines 27-32). FIG. 18 illustrates the transferring and fetching of a frame to and from the common buffer in the configuration of FIG. 17 (col. 14, lines 10-11). The frame is received in S31, the processing unit 13B checks for congestion in S32, and the received frame is transferred to the common buffer 130 in case of congestion in S33 (col. 14, lines 11-16). If the congestion still exists, received frames will be transferred to and written in the common buffer 130 (col. 14, lines 16-18). In S34, the processing unit 13B constantly monitors congestion and determines if the congestion has been resolved or not (col. 14, lines 18-19). In S35, if the congestion has been resolved, the frame is taken out from the common buffer 130 (col. 14, lines 19-21). In S36, the frame, which has been taken out, is written in the transmitting buffer 13E to make it ready for transmission (col. 14, lines 21-23). If it is determined that no congestion is present in S32, then the processing unit goes to S36, wherein it writes the received frame directly in the transmitting buffer 13E (col. 14, lines 23-26).

However, as with Kuo et al., Shirai et al. do not teach or suggest determining a <u>number of transmit buffers to be associated with the packet</u>; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if <u>the number of transmit buffers</u> does not exceed a pre-determined threshold.

The Office Action appears to state that Shirai et al. teach arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers (i.e., the number of transmit buffers to be associated with the packet) does not exceed a pre-determined threshold. (citing col. 14, lines 10-25 and col. 2, lines 27-32).

Applicants respectfully disagree.

Applicants respectfully note the cited portions of Shirai et al. However, stating that congestion takes place when, for example, the service rate of a processor of the frame relay

switching apparatus or the service rate of a buffer exceeds a predetermined reference value does not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers (i.e., the number of transmit buffers to be associated with the packet) does not exceed a pre-determined threshold. Moreover, stating that the frame is transferred to the common buffer in case of congestion and that the processing unit writes the received frame directly into the transmitting buffer if there is no congestion does not teach or suggest arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers (i.e., the number of transmit buffers to be associated with the packet) does not exceed a pre-determined threshold.

Thus, neither Kuo et al. nor Shirai et al., nor any combination thereof proposed in the Office Action teaches or suggests determining a <u>number of transmit buffers to be associated with the packet</u>; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if <u>the number of transmit buffers</u> does not exceed a pre-determined threshold.

For at least the reasons above, neither Kuo et al., nor Shirai et al., nor any combination thereof proposed in the Office Action, teaches or suggests a method, comprising: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 1.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 10

Claim 10 recites an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be

transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

Neither Kuo et al., nor Shirai et al., nor any combination thereof proposed in the Office Action, teaches or suggests the article of claim 10.

At the very least, neither Kuo et al. nor Shirai et al., nor any combination thereof proposed in the Office Action teaches or suggests an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: determining a number of transmit buffers to be associated with the packet and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold.

For at least the reasons above, neither Kuo et al., nor Shirai et al., nor any combination thereof proposed in the Office Action, teaches or suggests an article, comprising: a storage medium having stored thereon instructions that when executed by a machine result in the following: receiving at a processing element a request to transmit a packet associated with a packet identifier; determining a number of transmit buffers to be associated with the packet; and arranging for the packet to be transmitted through a port without storing the packet identifier in a local transmit queue if the number of transmit buffers does not exceed a pre-determined threshold, as recited in claim 10.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 13

Claim 13 recites an apparatus, comprising: an input path to receive a request to transmit a packet associated with a packet identifier; a local memory portion; and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

Neither Kuo et al., nor Shirai et al., nor any combination thereof proposed in the Office Action, teaches or suggests the apparatus of claim 13.

At the very least, neither Kuo et al. nor Shirai et al. teach or suggest an apparatus, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a <u>number of transmit buffers to be associated with the packet</u> does not exceed a pre-determined threshold.

For at least the reasons above, neither Kuo et al., nor Shirai et al., nor any combination thereof proposed in the Office Action, teaches or suggests an apparatus, comprising: an input path to receive a request to transmit a packet associated with a packet identifier; a local memory portion; and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold, as recited in claim 13.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

Claim 25

Claim 25 recites a system, comprising: a backplane; a first line card connected to the backplane; and a second line card connected to the backplane, the second line card including a processing element having: an input path to receive a request to transmit a packet associated with a packet identifier, a local memory portion, and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

Neither Shirai et al., nor Mullendore et al. nor any combination thereof proposed in the Office Action, teaches or suggests the system of claim 25.

Shirai et al. do not teach or suggest a system, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the

local memory portion if a <u>number of transmit buffers to be associated with the packet</u> does not exceed a pre-determined threshold.

As with Shirai et al., Mullendore et al. do not teach or suggest a system, comprising: a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold.

For at least the reasons above, neither Shirai et al., nor Mullendore et al., nor any combination thereof proposed in the Office Action, teaches or suggests a system, comprising: a backplane; a first line card connected to the backplane; and a second line card connected to the backplane, the second line card including a processing element having: an input path to receive a request to transmit a packet associated with a packet identifier, a local memory portion, and a processing portion adapted to arrange for the packet to be transmitted through a port without storing the packet identifier in the local memory portion if a number of transmit buffers to be associated with the packet does not exceed a pre-determined threshold., as recited in claim 25.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

<u>Dependent claims</u>

Claims 2-9, 11-12, 14-15 and 26-27 depend from independent claims 1, 10, 13 and 25, respectively, and therefore should be allowed for at least the reasons set forth above with respect to independent claims 1, 10, 13 and 25, respectively.

CONCLUSION

For at least the reasons set forth above, Applicants respectfully submit that the present application is in condition for allowance. Accordingly, reconsideration and allowance of the present application are respectfully requested.

Because the reasons set forth above are sufficient to overcome the rejections set forth in the outstanding Office Action, Applicants do not address some of the assertions set forth therein and/or other possible reasons for overcoming the rejections. Nonetheless, Applicants reserve the right to address such assertions and/or to present other possible reasons for overcoming the rejections in any future paper and/or proceeding.

If the Examiner believes that a telephone interview would expedite the prosecution of this application in any way, the Examiner is cordially requested to contact the undersigned via telephone at (203) 972-0006, ext. 1014.

Respectfully submitted,

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